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ARCADIS
Infrastructure, environment, buildings

Mr. Lenny Young, Administrator
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Louisiana Department of Environmental Quality
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ENVIRONMENT

Subject:
Addendum to Request for Site-Specific
Treatability Variance for Acrylic Acid in Soils
Eunice Train Derailment, May 27, 2000
Agency Interest No: ~~82576~~ 85276

Date:
6 February 2006

Contact:
George H. Cramer, II

Extension:
228

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gcramer@arcadis-us.com

Our ref:
LA001993.0002.0001
UnionPacific/1993.2/C/26/bbn

Dear Mr. Young:

ARCADIS is submitting this addendum to our May 20, 2002, petition for a site-specific variance from the treatability standard for acrylic acid for the soils at the Eunice, Louisiana, site on behalf of Union Pacific Railroad (UPRR). Since that time, the site has been extensively studied and alternative treatment technologies evaluated. These technologies alter the ultimate use planned for the impacted soil, but change nothing else in the original petition. Changes in the body of the petition are denoted in **bold** type. The petition was submitted in accordance with Louisiana Administrative Code (LAC) 33:V.2231.G. The information specifically requested in LAC 33.I.907.C. and the above specified sections of LAC 33:V.2231.G was provided in the original request and is summarized and amended below.

I. Petitioner's Name and Address (§ 907.C.1.)

Union Pacific Railroad
24125 Aldine Westfield Road
Spring, Texas 77373-9015
Contact: Geoffrey Reeder

II. Petitioner's Interest in the Proposed Action (§ 907.C.2.)

UPRR is the generator of a large volume of impacted soil media from a train derailment site northwest of the town of Eunice, Louisiana. Approximately 1,500 **to 3,000** tons of this soil have been mildly contaminated by acrylic acid (U008). UPRR has undertaken the clean up of environmental media at the site impacted by the chemicals carried in the derailed railcars.

III. Basis for the Requested Variance (§ 907.C.3.)

Acrylic acid in its pure form is a listed waste due to ignitability. The treatment standard for this compound is incineration. Based upon LAC 33:V.2231.G.2.a, UPRR believes that treatment of this impacted media by incineration is technically inappropriate, resulting in the incineration of a large volume of this soil (1,500 **to**

3,000 tons) solely because it is impacted by low levels of acrylic acid (the highest residual concentration detected to date is 240 milligrams per kilogram [mg/Kg]). This equates to less than one tenth of one percent by volume of the soil even if all the soil were impacted by this concentration. In addition, the acrylic acid at the site does not exhibit the same nature as the acrylic acid utilized in the determination of the hazardous waste characteristic of ignitability. The waste material polymerized during the release, becoming a solid material, and is no longer ignitable. Although occasional exposed pieces of the polymerized material have been found at or near the surface of the ground, in the 5½ years since the derailment, no acrylic acid has ignited at the site. Additionally, soil with this concentration of acrylic acid was tested for ignitability as part of the waste characterization during the initial removal operation. The soil was determined not to be ignitable.

The material at the derailment site is not the same material that was utilized to evaluate the treatment standard due to the polymerization of the material when exposed to air.

IV. ...Proposed Regulations or Amendments... (§ 907.C.4.)

No regulations or amendments to regulations are anticipated due to this action.

V. Other Information that Justifies the Proposed Action (§ 907.C.5.)

Treatment of the contaminated soil by incineration **is unnecessary**. In accordance with LAC 33:V.2231.G.3.a.ii, ARCADIS has calculated concentration limits under Management Option – 1 (MO-1) that an individual could be exposed to on a daily basis without appreciable risk of deleterious effect during a lifetime. The MO-1 standard (100 mg/Kg) is based on an industrial exposure scenario.

The acrylic acid that is in the soil does not readily leach from the soil. Synthetic Precipitate Leaching Procedure (SPLP) samples collected from the impacted areas of the right-of-way documented that the acrylic acid is not mobile. As shown in the Railbed Report (February 2002) the SPLP sample collected from the area of highest acrylic acid concentrations had an SPLP concentration of only 0.066 milligrams per liter (mg/L) which is three orders of magnitude below a concentration that is protective of groundwater. Therefore this soil, **if left on site,** will not create an environmental hazard due to the leaching of the acrylic acid.

Based upon the information provided above, UPRR proposes to **allow any** soil containing concentrations of 100 mg/Kg or less of acrylic acid **to remain on site**. UPRR proposes to dispose of the soil impacted by acrylic acid above the MO-1 concentration of 100 mg/Kg by **placement in a permitted landfill**.

UPRR will comply with all applicable requirements for restricted wastes found under LAC 33:V.2245 and 2247.

Certification

Based upon a thorough review of the information pertinent to this petition, the engineer providing oversight of this project makes the following certification:

> *I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.*

Sincerely,

ARCADIS G&M, Inc.

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